Comput. Math. Applic. Vol. 15, No. 11, pp. 975–976, 1988
Pergamon Press plc. Printed in Great Britain

BOOK REPORTS

The Book Reports section is a regular feature of *Computers & Mathematics with Applications*. It is an unconventional section. The Editors decided to break with the longstanding custom of publishing either lengthy and discursive reviews of a few books, or just a brief listing of titles. Instead, we decided to publish every important material detail concerning those books submitted to us by publishers, which we judge to be of potential interest to our readers. Hence, breaking with custom, we also publish a complete table of contents for each such book, but no review of it as such. We welcome our readers' comments concerning this enterprise. Publishers should submit books intended for review to the Editor-in-Chief,

Professor Ervin Y. Rodin
Box 1040
Washington University
St Louis
MO 63130, U.S.A.

Building Expert Systems. Edited by Frederick Haves-Roth, Donald A. Waterman and Douglas B. Lenat. Addison–Wesley, Reading, Mass. (1983). 444 pages. $44.25.

Contents:

A Guide to Expert Systems. By Donald A. Waterman. Addison–Wesley, Reading, Mass. (1986). 419 pages. $33.50.

Contents:

29. Bibliography of expert system tools
30. Companies engaged in expert systems work

Introduction to Expert Systems. By Peter Jackson. Addison–Wesley. (1986). 246 pages. $24.75.

Contents:
1. Expert systems and artificial intelligence
2. Heuristic search in DENDRAL and META-DENDRAL
3. Production systems
4. Structured objects
5. Predicate logic
6. MYCIN: medical diagnosis using production rules
7. MYCIN derivatives: EMYCIN, TEIRESIA and NEOMYCIN
8. INTERNIST: representation of knowledge by structured objects
9. R1: recognition as a problem solving strategy
10. CENTAUR: a combination of frames and rules
11. Meta-level inference and common sense reasoning in MECHO
12. Tools for building expert systems
13. Knowledge acquisation
14. Explaining expert system behavior
15. Summary and conclusions

Expert Systems for Business. Edited by Barry G. Silverman. Addison–Wesley, Reading, Mass. (1987) 446 pages. $25.75.

Contents:
1. Building an expert system capability
2. Expert support systems
3. Expert systems
4. Integrating expert systems into the business environment
5. Next-generation technology

PROLOG: Programming for Artificial Intelligence. By Ivan Bratko. Addison–Wesley, Reading, Mass. (1987) 423 pages. $29.25.

Contents:
1. An overview of PROLOG
2. Syntax and meaning of PROLOG programs
3. Lists, operators, arithmetic
4. Using structures: example programs
5. Controlling backtracking
6. Input and output
7. More built-in procedures
8. Programming style and technique
9. Operations on data structures
10. Advanced tree representations
11. Basic problem-solving strategies
12. Best first: a heuristic search principle
13. Problem reduction and AND/OR graphs
14. Expert systems
15. Game playing
16. Pattern-directed programming